Annexure-1

LCSD/SPLF/Metallic/Mould/2018

Fabrication procedure of Mould for SSLV Ogive PLF

Ref: Drawing No. 257-112-19-004 00 00

1. Job involves rolling of 35mm thick plates
2. Tack-Weld rolled sheets to make Ogive profile as per drawing.
3. Verify the overall profile and dimensions of the welded shell.
4. Complete the welding of the sheets together. All the joints should be arc welded & weld quality should be confirmed by DP test and report to be submitted.
5. Two joints have been identified (Joint1 & joint 2) in the drawing hence hardware should be fabricated with minimum two joints if possible.
6. Shell to web & shell to circular stiffener to be welded by intermittent weld.
7. Carry out stress relieving of the full mould. Stress relieving should be done by heating method only. Stress relieving report to be provided.
8. Carry out rough machining of the shell outer surface and maintain 5-10mm allowance for final machining.
9. Again verify the profile and dimensions of the Shell and inspection report should be submitted.
10. Carry out final machining on the outer surface of the Shell to get the final dimensions. 20mm minimum shell thickness shall be maintained.
11. Backup structure of tool to be sandblasted/grit blasted and to be painted, which can withstand operating temperature of 200^{o}C for minimum 50 cycles.
12. Moulding surface to be coated with nickel or chromium or hot dip galvanization of about 100 micron thickness and surface finish of ∇∇ should be maintained.
13. Detachable wheel assembly (Blickle make of 2.5 ton load rating) with braking system should be incorporated in the mould at the location provided in the drawing.

✓ **Acceptance plan of the mould**

i. Shell should be leak proof at 1 bar vacuum and 200^{o}C temperature. Leak test will be carried out at VSSC.
ii. Minimum thickness of mould shell (item no.1 from drawing) should be demonstrated and report should be provided.
iii. Dimension inspection of the realized mould should be demonstrated and report should be provided. However final acceptance is based on inspection at VSSC.